

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7058

Petition of Central Vermont Public Service)
Corporation for a certificate of public good)
authorizing the expansion of the North Elm)
Street Substation located in St. Albans,)
Vermont, said expansion to include: (1) the)
installation of capacitors and SCADA)
equipment; (2) related line work; and (3) the)
expansion of the substation fence)

Order entered: 5/4/2005

I. INTRODUCTION

This case involves a petition filed by Central Vermont Public Service Corporation ("CVPS") on March 7, 2005, requesting a certificate of public good under 30 V.S.A. § 248(j) to install capacitors and supervisory control and data acquisition ("SCADA") equipment, and perform related line work, at the North Elm Street Substation located in St. Albans, Vermont. The work would necessitate the expansion of the substation fence. Petitioners submitted prefiled testimony, proposed findings, and a proposed order pursuant to the requirements of 30 V.S.A. § 248(j).

Notice of the filing in this Docket was sent on March 31, 2005, to all entities specified in 30 V.S.A. § 248(a)(4)(c) and all other interested parties. The notice stated that any party wishing to submit comments as to whether the petition raises a significant issue with respect to the substantive criteria of 30 V.S.A. § 248 needed to file comments with the Board on or before April 29, 2005. A similar notice of the filing was published in the *St. Albans Messenger* on April 1 and April 8, 2005.

On April 21, 2005, CVPS filed a letter with the Board updating the plans included with the petition. Instead of a 10-foot square equipment cabinet in the substation yard mentioned in the March 7 filing, CVPS is requesting approval for a 10-foot by 14-foot equipment cabinet.

On April 29, 2005, the Vermont Department of Public Service ("Department") filed comments on the petition stating that additional mitigation was required. The letter included a stipulation between the Department and CVPS that requires CVPS to provide additional plantings and install plastic inserts in the fencing of the substation. The stipulation also provides for the Board to retain jurisdiction to review and approve post-construction aesthetic mitigation measures. The Department's letter states that it does not believe that the petition raises a significant issue with respect to the substantive criteria of Section 248 if the stipulation is accepted and the proposed additional mitigation measures are required.

No other comments were received on the petition.

II. FINDINGS

1. CVPS is a duly organized public service corporation with a principal place of business at 77 Grove Street, Rutland, Vermont. Petition at 1.
2. The proposed project involves the installation of capacitors and SCADA equipment, and related line work, at the North Elm Street Substation located in St. Albans, Vermont. The work would necessitate the expansion of the substation fence. Watts pf. at 1–2.
3. The proposed project involves the installation of a 5.4 MVAR capacitor bank that is approximately 16 feet in height. A 16-foot pedestal for mounting the 34.5 kV fuses, a cable support for the cable terminations and potheads, and a 34.5 kV capacitor switching device will be installed to connect to the transmission line. Watts pf. at 1.
4. To accommodate the capacitor bank and related structures, CVPS is proposing to expand the fenceline by approximately 25 feet to the southwest and approximately 8 feet to the southeast. The southerly corner of the expanded substation yard will require approximately 40 cubic yards of gravel fill to match the existing yard's finished grade. Watts pf. at 1.
5. CVPS is proposing to connect the existing 34.5 kV line and the capacitor bank with 34.5 kV underground cables. The cable and connection and fence relocation will allow for service expansion in the future and will allow a secure portable substation connection when needed. Watts pf. at 2.

6. The capacitor bank will be SCADA controlled via radio from an existing radio antenna tower in St. Albans. Watts pf. at 2.

7. The proposed project is designed to alleviate low voltage conditions during contingencies and scheduled maintenance outages. Watts pf. at 2.

Orderly Development of the Region

[30 V.S.A. § 248(b)(1)]

8. The proposed project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of municipal legislative bodies, and the land conservation measures contained in the plan of the affected municipality. This finding is supported by findings 9 through 12, below.

9. The proposed project will not materially impact existing or potential land uses in the region. Upton pf. at 1–3.

10. The proposed project will not significantly impact areas of natural or cultural significance. Upton pf. at 3–9.

11. The proposed project will not have an unduly adverse impact on land conservation measures included in the St. Albans City Plan ("Plan"). The Plan calls for the protection of wetland and other surface water resources, and for design improvements for public works affecting the built and natural environments. The proposed project has been designed, with input from the Vermont Wetlands Office, to minimize impacts to an adjacent wetland and maintain compliance with the Vermont Water Quality Standards. The proposed project also includes the installation of additional screening between the existing substation and North Elm Street. Upton pf. at 1–4; exh. TOU-2.

12. The St. Albans City Planning Commission, the St. Albans City Council, and the Northwest Regional Planning Commission were provided with a description of the proposed project and construction plans. These entities did not provide comment on the proposed project. Upton pf. at 4.

Need for Present and Future Demand for Service

[30 V.S.A. § 248(b)(2)]

13. The proposed project is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost effective manner through energy conservation programs and measures and energy efficiency and load management measures. This finding is supported by findings 14 through 15, below.

14. CVPS has identified a weakness in its 34.5 kV transmission loop around St. Albans during certain contingencies. The weakness is unacceptably low voltage during these contingencies which threatens the reliability of the St. Albans substations and also manifests itself during scheduled outages for substation or transmission line maintenance. Watts pf. at 2.

15. Installation of Vermont Electric Power Company's portable 5.4 MVAR bank has been required during these scheduled outages. The proposed project includes the permanent installation of a 5.4 MVAR bank at the North Elm Street substation. Watts pf. at 2.

System Stability and Reliability

[30 V.S.A. § 248(b)(3)]

16. The proposed project will not adversely affect system stability. The proposed project will increase reliability by alleviating low voltage conditions during contingencies and scheduled maintenance outages. Watts pf. at 2–3.

Economic Benefit to the State

[30 V.S.A. § 248(b)(4)]

17. The total construction cost for the proposed project is estimated at \$230,000. Watts pf. at 2.

18. The proposed project benefits CVPS's customers by ensuring system stability and reliability during contingencies and scheduled maintenance outages and by providing adequate space for a secure portable substation at the facility. Watts pf. at 2–3.

**Aesthetics, Historic Sites, Air and Water Purity,
the Natural Environment and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

19. The modifications as proposed will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and public health and safety. This finding is supported by findings 20 through 36 below, which are the criteria specified in 10 V.S.A. §§ 1424(a)(d) and 6086(a)(1)-(8)(a) and (9)(k).

Outstanding Resource Waters

[10 V.S.A. § 1424(a)(d)]

20. There are no designated outstanding water resources that will be affected by the proposed project. Upton pf. at 9.

Water and Air Pollution

[10 V.S.A. § 6086(a)(1)]

21. The proposed project will not result in unreasonable air pollution. There will be no emissions from the proposed project. If clearing is necessary, vegetative materials will be chipped and mulched or disposed of at an approved off-site location. No burning will be required for the proposed project. Upton pf. at 4.

Headwaters

[10 V.S.A. § 6086(a)(1)(A)]

22. The proposed project will not be located in a headwaters area. Upton pf. at 4.

Waste Disposal

[10 V.S.A. § 6086(a)(1)(B)]

23. There will be no disposal of any waste material into surface or ground water. Upton pf. at 4.

24. Any material removed from the site will be reused or disposed of in accordance with all applicable laws. Upton pf. at 4.

Water Conservation

[10 V.S.A. § 6086(a)(1)(C)]

25. The proposed project will not require the use of water. Upton pf. at 5.

Floodways, Streams, and Shorelines

[10 V.S.A. §§ 6086(a)(1)(D)(E) &(F)]

26. The proposed project is not located near any floodways, streams, of shorelines. Upton pf. at 4–6.

Wetlands

[10 V.S.A. § 6086(a)(1)(G)]

27. There are no Class I or Class II wetlands near the proposed project. Upton pf. at 6; exh. TOU-2.

28. The North Elm Street substation abuts a Class III wetland associated with Stevens Brook. Class III wetlands are not regulated under the Vermont Wetland Rules. The fence expansion will require the placement of approximately 1,120 square feet of fill in the wetland. A representative of the Agency of Natural Resources has determined that the proposed project, as designed, will comply with the Vermont Water Quality Standards. CVPS will remove, and dispose off-site, common reed, a state-listed noxious weed, from the wetlands on CVPS's property. This action will mitigate the impacts of the additional fill in the wetlands. Sediment barriers will be installed immediately downslope of any fill prior to construction and will remain in place until vegetation is established in all disturbed areas. Upton pf. at 5–6; exhs. DGW-1 and TOU-2; Vermont Wetlands Rules, as adopted December 10, 2001, at § 4.1; Vermont Department of Agriculture, Food & Markets, Quarantine #3, Noxious Weeds.

Sufficiency of Water and Burden on Existing Water Supply

[10 V.S.A. §§ 6086(a)(2)&(3)]

29. The proposed project will not require the use of water and will not place a burden on any existing water supply. Upton pf. at 6.

Soil Erosion

[10 V.S.A. § 6086(a)(4)]

30. The proposed project will not result in unreasonable soil erosion or reduce the ability of the land to hold water. Erosion control measures, including silt fencing, will prevent erosion during and after construction. Upton pf. at 6; exh. TOU-2.

Transportation Systems

[10 V.S.A. § 6086(a)(5)]

31. The proposed project will not cause unreasonable congestion or unsafe conditions with respect to transportation systems. Upton pf. at 6.

Educational and Municipal Services

[10 V.S.A. § 6086(a)(6)and (7)]

32. The proposed project will not cause an unreasonable burden on the ability of St. Albans to provide education or municipal services. Upton pf. at 6–7.

**Aesthetics, Historic Sites
and Rare and Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

33. The proposed project will not have an undue adverse effect on the scenic or natural beauty, aesthetics, historic sites or rare and irreplaceable natural areas. This finding is supported by findings 34 through 36, below.

34. The existing substation is surrounded by a Class III wetland to the east, North Elm Street to the west, a housing complex to the north, and a lot currently being developed for additional

housing to the south. A small amount of brush adjacent to the new east fence will be cleared. No other clearing will be required. Existing trees on CVPS's property to the north and south of the substation will be left intact. CVPS will install new screening vegetation on the west side of the substation to augment existing screening along North Elm Street. Upton pf. at 7–8; exhs. DGW#1 and DGW#2.

35. CVPS will plant approximately 8–10 trees along the southern exposure of the substation. Additionally, CVPS will plant additional trees along the bank by the northerly fence between the substation and the apartment complex. CVPS will install plastic inserts in the fencing of the substation. Stipulation at 2.

36. There are no known rare or irreplaceable areas in the area of the proposed project. Nearby buildings of potential historic significance will not be affected by the proposed project. Upton pf. at 9; exh. TOU-1.

Discussion

Based on the above findings, the Board finds that the proposed project will not have an undue adverse effect on the aesthetics or scenic and natural beauty of the area. In reaching this conclusion, the Board has relied on the Environmental Board's methodology for determination of "undue" adverse effects on aesthetics and scenic and natural beauty as outlined in the so-called Quechee Lakes decision. Quechee Lakes Corporation, #3W0411-EB and 3W0439-EB, dated January 13, 1986.

As required by this decision, it is first appropriate to determine if the impact of the project will be adverse. The project would have an adverse impact on the aesthetics of the area if its design is out of context or not in harmony with the area in which it is located. If it is found that the impact would be adverse, it is then necessary to determine that such an impact would be "undue." Such a finding would be required if the project violates a clear written community standard intended to preserve the aesthetics or scenic beauty of the area, if it would offend the sensibilities of the average person, or if generally available mitigating steps would not be taken to improve the harmony of the project with its surroundings. The Board's assessment of whether a

particular project will have an "undue" adverse effect based on these standards should be significantly informed by the overall societal benefits of the project.¹

The mitigation proposed by CVPS, as supplemented by the mitigation measures required by the April 29 Stipulation, should ensure that the proposed project will not have an undue adverse aesthetic impact. However, the Board does have some concern regarding the effectiveness of the plastic inserts required as additional aesthetic mitigation by the Stipulation. To address this concern, Board staff will conduct a site visit after construction of the substation is completed, but prior to the installation of the plastic inserts, to examine whether the proposed mitigation is appropriate and sufficient.

Necessary Wildlife Habitat and Endangered Species

[10 V.S.A. § 6086(a)(8)(A)]

37. The proposed project will not impact any necessary wildlife habitat or affect any known sites containing endangered species. Upton pf. at 9; exh. TOU-1.

Development Affecting Public Investments

[10 V.S.A. § 6086(a)(9)(K)]

38. The proposed project will not unnecessarily or unreasonably endanger the public or quasi-public investments in any governmental public utility facilities, services, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of the public's use or enjoyment of or access to such facilities, services, or lands. Upton pf. at 9.

Least-Cost Integrated Resource Plan

[30 V.S.A. § 248(b)(6)]

39. The proposed project is consistent with the principles for resource selection in accordance with CVPS's approved least-cost integrated plan. CVPS's integrated resource plan requires continuous evaluation of the reliability of its transmission system and evaluation of the strategic placement of capacitor banks throughout its transmission system. Watts pf. at 3.

1. Docket 6884, Order of 4/21/04 at 20-21.

Compliance with Electric Energy Plan

[30 V.S.A. § 248(b)(7)]

40. The proposed project is consistent with the 2005 Vermont Electric Plan because it will increase the reliability of an existing substation which provides economical and efficient service to existing CVPS customers. Watts pf. at 3.

41. On May 3, 2005, the Department filed a letter stating that the proposed project, as supplemented by the April 29 Stipulation, is consistent with the Vermont Twenty-Year Electric Plan, pursuant to 30 V.S.A. § 202(f).

Outstanding Resource Waters

[30 V.S.A. § 248(b)(8)]

42. There are no designated outstanding water resources that will be affected by the proposed project. Upton pf. at 9.

Existing or Planned Transmission Facilities

[30 V.S.A. § 248(b)(10)]

43. The proposed project can be served economically by existing transmission facilities without undue adverse effect on Vermont utilities or customers. Watts pf. at 2.

III. CONCLUSION

Based upon all of the above evidence, we conclude that the proposed construction will be of limited size and scope; the petition does not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248; the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j); and the proposed project will promote the general good of the state.

IV. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the proposed modifications, in accordance with the evidence, plans, and stipulation presented in this proceeding, will promote the general good of the State of Vermont in accordance with 30 V.S.A. Section 248, and a certificate of public good shall be issued in the matter with the condition that Board staff will conduct a site visit, upon completion of construction, to examine whether the proposed aesthetic mitigation is appropriate and sufficient.

Dated at Montpelier, Vermont this 4th day of May, 2005.

<u>s/James Volz</u>)	
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<u>s/David C. Coen</u>)	PUBLIC SERVICE
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)	BOARD
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<u>s/John D. Burke</u>)	OF VERMONT

OFFICE OF THE CLERK

FILED: May 4, 2005

ATTEST: s/Susan M. Hudson
Clerk of the Board

Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.